BOSTON UNIVERSITY
SCHOOL OF SOCIAL WORK

AN INVESTIGATION OF ONE HUNDRED AND FIFTY PATIENTS REFERRED TO THE SOCIAL SERVICE DEPARTMENT AT THE BOSTON SANATORIUM FOR FIRST DISCHARGE PLANS DURING THE PERIOD NOVEMBER 1, 1938 THROUGH JULY 31, 1940

A Thesis

Submitted by

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Chapter I

Introduction

Tuberculosis has long been recognized as a disease of poverty, Undernourishment, poor housing, and long hours of work are still taking their toll in the lives and efficiency of human beings. When tuberculosis strikes, there can be no compromise with the poor living conditions which engendered it. The patient must be lifted out of his employment, and usually out of his total life situation, in order that needed rest and nourishment may give his body forces a chance to recuperate.

The Boston Sanatorium has been attempting to provide the necessary care to these unfortunate individuals. It is not enough, however, to mend their bodies and send them out into the same dangerous living conditions as before. The transition after treatment must be gradual in almost every case and, with many, the patient must be removed to a modified situation where he will have a chance to enjoy permanently the maximum of good health.

Until recently, the care of the discharged sanatorium patient has been almost completely overlooked. Authorities figured their responsibilities ended with hospital treatment and release. Today, however, these same men are beginning to see that the major part of

their work is just commencing when the patient walks out the hospital door with medical approval.[1] The countless adjustments which he must make during his rehabilitation present situations and difficulties which even the man in excellent health would and does find dangerously challenging. How, then, can this individual, who has lived so long apart, catch the beat of the speeding tempo of modern life which a changed and changing world sets for him? Insecurity, lack of confidence, inadequate strength of body and purpose--all of these are part of the "equipment" which the discharged patient must "use."

Purpose of Study

This report purposes to present facts and data which draw a picture of the general characteristics, social, vocational, and physical, of tubercular patients who solicit the medical aid of the Boston Sanatorium and the directional aid of the Social Service Department of that organization. It further purposes to investigate the degree to which community agencies, designed to offer constructive guidance in the physical and vocational rehabilitation of discharged patients, are used and with what degree of

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1 Albert Lasky and Kenneth W. Hamilton, The Importance of Rehabilitational Therapy, p. 1.

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1 Albert Lasky and Kenneth W. Hamilton, The Importance of Rehabilitational Therapy, p. 1.

success. Finally, it purposes to suggest methods for improving and extending the devices and procedures now in effect.

Sources of Data

The data contained in this study comes from several sources. Information was taken from every case referred to the Social Service Department of the Boston Sanatorium for formulation of first discharge plans within the period from November 1, 1939 through July 31, 1940. This included 150 patients. The material was obtained entirely from social service records and excludes the case records of patients referred more than once for discharge plans, as they present specialized problems not a part of this investigation. Within the social service records are medical reports and social data used to determine the various facts appearing on Schedule I.[2] In compiling data regarding the 50 patients selected for follow-up,[3] records from the Division of Tuberculosis and tuberculosis clinics of the Boston Board of Health were consulted. For additional information about special cases, records from the Boston Tuberculosis Association and the Massachusetts Division

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2 See Appendix for Schedule 1
3 See Appendix for Schedule 2

of Vocational Rehabilitation were abstracted. Finally, personal interviews were held with the Supervisor of Social Service, Boston Sanatorium; Director, Division of Tuberculosis; six Supervising Nurses and six Nurses of the various tuberculosis clinics connected with the Boston Department of Public Health; Placement Secretary, Boston Tuberculosis Association; and two Assistant Supervisors, Massachusetts Division of Vocational Rehabilitation.

Methods of Study

The first method employed in this study was the reading of one hundred and fifty social case records of the Boston Sanatorium and recording of facts on Schedule I. The records covered the period from November 1, 1938 through July 31, 1940. Schedule I was designed to enumerate all factors of importance to the purpose of the study. Following this, the method was tabulation of the information on the schedules under the various headings. The same approach was used in setting up Schedule II and in tabulating findings concerning the fifty patients followed. In the selection of these fifty cases, a random sampling was taken from seventy-four patients with pulmonary tuberculosis who were discharged from the Boston Sanatorium in the period

from November 1, 1938 through October 31, 1939. Thus, all patients followed up were discharged at least five years previous to the present study. It was felt that a five-year period of time would be sufficient to show significant results in regard to readjustment or breakdown, for as far as is known, about 50 per cent of all patients discharged either die or break down again and return for further care within five years.[4]

In abstracting data from the records of the Boston Tuberculosis Association and the Massachusetts Division of Vocational Rehabilitation, information was gathered regarding the date of referral, referring person or agency, type of vocational plan arrived at, success of plan, and reason for closing case. For additional information, personal interviews were held with at least one staff member of the agencies visited for records.[5]

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4 Lasky and Hamilton, op. cit., p. 1
5 See Pages 3 and 4 under Sources of Data

Chapter II

Relation of the Sanatorium to Rehabilitation

More than one factor is involved in the complete rehabilitation of a person who enters a sanatorium with tuberculosis and is discharged at a later date. First, there is the problem of restoring the patient to a condition of physical health. However, this factor--the physical restoration of the individual--is the primary responsibility of the medical profession.

Then there is the problem of adjustment during hospitalization--the adjustment of the patient to hospital routine while undergoing treatment. This has to do with the very important factor, morale. Satisfactory adjustment to hospital surroundings reduces discharges against advice. The Boston Sanatorium resembles other sanatoria in that it facilitates physical recovery by the "mental approach."[6] Since orientation and adjustment are severe problems in maintaining the mental health and normal outlook of the patient, they are dealt with through the scientific and painstaking use of adequate social service.

The Medical Social Service Department at the Boston

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6 Wendell J. White, First Annual Report of the Essex Sanatorium Rehabilitation Department, 1940-41, p. 3.

Sanatorium consists of three workers--a supervisor and two case workers, who have been appointed to co-operate with the medical staff in helping patients with problems which arise out of their medical-social situation. The Department is so organized that it sees the patient on admission, whenever indicated during hospitalization, and again at discharge, with consent. Within this framework, the social workers are able to offer an intramural service to the patients who may present many problems during their period of hospitalization and to act as agents for the patient and the community. Most of these problems are common to all fields of social work but have a different emphasis because of the medical-social factors which may affect the patient's ability to accept prolonged hospital care.

These patient difficulties which are worked with in close relationship with the physician include: problems of adjustment to a situation, problems arising out of fears and anxieties, personality problems, disturbances in family relationships, broken homes, problems of child placement, neglect of children, alcoholism in family, failure to support, threatened separation and divorce, failure of the family to visit, problems arising out of the financial insecurity of the patient and his family,

need for medical appliances, problems of readjustment at discharge--including problems of vocational rehabilitation. In accomplishing the last, the Department has an adequate liaison with all of the resources in the community which can be drawn upon for assistance--welfare agencies, public health agencies, and vocational rehabilitation agencies.[7]

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7 Material in this chapter condensed from interview with the Supervisor of Social Service, Boston Sanatorium.

Chapter III

Boston Rehabilitation Program

As has been stated in the purpose of this study, the writer is interested in community aids for the physical and vocational rehabilitation of discharged sanatorium patients. For this reason, Chapter III deals with those community agencies which assist the returning patient in these areas.

Physical Rehabilitation

The Department of Public Health, together with its other duties, is organized with a view to reporting actively all known cases of tuberculosis and to the adoption of a uniform standard of approved treatment for all patients. Public health nurses play an important part in this organization and keep in touch with all known and suspected cases of tuberculosis or contacts. In addition, these nurses make a special effort to educate tubercular patients or their families concerning home care and the hazards of contagion. Besides visiting the homes of patients, the nurses help the doctors by conducting the tuberculosis clinics.

The Boston Sanatorium is a part of the Boston City Hospital and admits patients with a Boston settlement only from the City Hospital itself or from the Board of

health of Boston. Patients discharged from the Sanatorium are automatically registered with the Board of Public Health and are visited regularly by the nurses connected with it.

Upon the patient's return home, the efforts of the nurses are directed toward teaching the members of the household hygienic practices. They are also taught the facts about infection and disease on the basis of the specific situation in the family. At the same time, the patient is helped to continue the practice of prophylactic measures by explanation of their importance in the protection of others in the family. Even though all discharge from the chest may have ceased, safe disposal of any sputum at any time and from any cause, covering the mouth and nose when coughing or sneezing, washing hands before eating, rest, adequate diet, and periodic medical examination are advised as desirable for positive health measures. These factors assume more immediate significance when the case is discharged before the lesion is completely healed, and Chapter V illustrates that the majority of patients studied were discharged in the quiescent stage of the disease.

However, as the concept of tuberculosis nursing is carried on in Boston today, it requires more of a nurse

than the mere knowledge of tuberculosis and a familiarity with treatment and epidemiological measures. It should imply a knowledge of and skill in the application of the principles of mental health; co-operation with health, relief, social and employment agencies for the correction of individual and family maladjustments; a knowledge of sanitation and housing so that salutary changes can be effected in home conditions; an understanding of the major aspects of home management and assistance in making desirable adjustments; and a healthy growing interest in life with its social changes so that the family may be directed toward a philosophy of living that will meet their particular needs. It is public health nursing in the broadest sense.[8]

Meaning of Vocational Rehabilitation

In an article on the "Scope and Purpose of the National Program of Vocational Rehabilitation," John A. Kratz states,

> "From the standpoint of the individuals served, vocational rehabilitation is a type of social case work which makes a careful study of the personal status and environmental situation of the disabled person, interprets the findings, and plans a program looking to his ultimate physical, vocational, and social independence. From the standpoint of society, the vocational

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8 The above discussion is based on interviews with public health nurses of the Boston Dept. of Public Health.

rehabilitation program is a type of social insurance against dependency, inefficiency, and frustration, for no social group can long afford to permit the existence in its midst of a large group of persons who not only are unproductive, but who also consume an appreciable portion of the productive effort of others."[9]

"There are three main steps to be taken in the vocational rehabilitation of a physically handicapped person; namely, physical restoration, special vocational training, placement. Of these, the most important is adequate placement, since in its absence all that has gone on before in the rehabilitation process is so much wasted effort and dissipation of funds. For these reasons, those responsible need to be very sure that, with his particular disability, a man can meet the physical demands of the trade or occupation for which he is being trained; that his mental ability will permit him to compete with normal workers despite his recognized handicap; finally, that his financial resources will permit the necessary deferred wage-earning period essential if training is to be undertaken before placement. Concerning this element of placement, with which we are chiefly occupied, the following is quoted:

> 'Under the intent of the Federal and State rehabilitation acts, no person is rehabilitated until he is successfully placed in a remunerative vocation.... Placement after training will generally not be difficult if careful and close supervision has been exercised during the training. The rehabilitation agency often puts the retrained disabled person on his own resources

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9 John A. Kratz, "Scope and Purpose of the National Program of Vocational Rehabilitation," Rehabilitation Review, 6:238, August, 1932.

> and expects him to locate his own employment opportunity. In the case of commercial and other private schools, the training agency will either assist in placement or assume responsibility for it. Placement of the disabled is a function that requires co-operation of employers. Consequently, a State department of rehabilitation must carry on its work so that employers will co-operate to the fullest extent. This means that the service must be genuine and practical, so that employers will not have occasion to regret providing employment for clients of the State agency of rehabilitation.'
>
> To sum up, then, we can state that the efficiency and satisfactory fulfillment of rehabilitation service for the disabled is evaluated by the actually placing in active and competitive employment of those it has been attempting to assist. By the degree to which that employment is suitable to the person involved, as well as being a logical sequence to the training given--by so much will be the measure of its success. Such placements are not only economically beneficial to the community, but humane obligations which society should and must assume."[10]

With this background in mind, the program of rehabilitation available to the tuberculous in Boston is considered. The agencies discussed, the Boston Tuberculosis Association and the Massachusetts Division of Vocational Education, are those most frequently used for this end by the Sanatorium social service, by doctors,

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10 Holden, Catherine S., "Employment of Physically Handicapped Persons in the City of Boston." Unpublished Master's Thesis, School of Social Work, Boston University, Boston, 1941.

and nurses.

Boston Tuberculosis Association

As early as 1923, the Boston Tuberculosis Association began to attack the problem of medical supervision of discharged cases as a part of its general program. A placement bureau was started in August, 1923, under the direction of a field secretary and a placement committee. Since October, 1930, the Association has operated the Sheltered Workshop, which seeks to overcome physical handicaps by prescribing graduated work under medical supervision. At the Sheltered Workshop, the work tolerance of the patient is built up from two hours to seven hours a day.

The chief aims are directed toward restoring the patient's confidence in himself as a productive individual, at the same time stimulating his progress in returning to normal industry through vocational training which prepares him for an occupation in keeping with his physical needs. This is accomplished by giving the patient a good daily routine which includes a hearty lunch and rest period; good trade training under medical supervision; wages on admission, which increase with work hours; increased hours of labor until the patient can be sent out into normal industry without endangering his health.

and nurses.

Placements are made through a combination of available methods. Frequently contacts are made by the placement worker, Miss Frutkoff. Many times the trainee is giving places to contact or leads to follow up. Care is taken not to overlook any possible agency set up in the city which may be utilized for placement.

According to a report of the Association concerning a follow-up study of 189 patients, including 27 employed at the shop,

> Of the 125 who remained at the shop, more than two months, 84 were well, 61 being employed; 10 had moved out of State; 5 were unknown; 9 were taking treatment; and 17 had died; 7 or 6.4 per cent from pulmonary tuberculosis, 10 from causes other than tuberculosis. This follow-up study showed the 76.5 per cent of our shop graduates reported on were well and able to work. We found that 15 of the patients who were discharged in 1939 had been working almost a year and their combined wages approximated $15,000, which is more than the amount spent for the training and supervision of the 48 patients at the shop that year.
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> We are told that generally over 30 per cent of the patients leaving the Sanatorium die within five years from tuberculosis, so that the records of the Sheltered Workshop, which compare well with other rehabilitation shop records in this country, clearly indicate the value of industrial convalescence.[11]

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11 Report of Shop and Placement Committee, Boston Tuberculosis Asso., Thirty-Seventh Annual Report, p. 14, 1940.

Division of Vocational Education

The services of the Division of Vocational Education, Rehabilitation Section, are called into play by the interested agencies who refer the ex-sanatorium patient. The use of these services is feasible generally when the patient's work tolerance has been built up to a point where he can safely train for about 5 hours a day, usually 7 hours a day. Vocational rehabilitation in the sense used by the Division "means the readjustment and return of the handicapped individual to his proper place in the productive forces of the day."[12] This agency provides services not only for those physically disabled through tuberculosis but also for those handicapped by any ailment or accident.

In order to accomplish rehabilitation, the Section studies each handicapped person as an individual, and an attempt is made to draw up a rehabilitation program that will meet the needs of that individual. In considering such a program, one of the most important steps is

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12 Vocational Rehabilitation of Persons Disabled in Industry or Otherwise, Bulletin of the Department of Education, Rehabilitation Section No. 6, 1941.

> the selection of a suitable occupation for the future. The selection depends upon many factors, among them the handicapped person's disability, education, natural aptitudes, previous industrial experience, and the opportunities for employment in the particular line of work. The Rehabilitation Section helps the handicapped person to give the proper consideration to these factors and to choose an occupation in which he may expect to be successful.
>
> The Rehabilitation Section then provides whatever training is necessary to prepare the particular person for the particular occupation. The training is designed and planned to fit the person not only for useful employment but to meet the requirements of a specific vocation.
>
> Finally the handicapped person must be placed in the occupation for which he has been trained and his rehabilitation is completed when he has demonstrated on the job that he can satisfactorily perform the duties required.[13]

The services of the Rehabilitation Section include: (1) counsel upon training or placement in the former occupation or a new one; (2) an opportunity to enter upon a suitable course of training in trade, training, or technical, agricultural, or commercial schools; in industrial or commercial establishments; by correspondence courses, or by tutors; (3) supervision and guidance during training so that the greatest benefit may derive therefrom; (4) help in securing placement when the

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13 Ibid., p. 3-4

course of training has been successfully completed; (5) advice and assistance in securing artificial limbs and other orthopedic and prosthetic appliances at minimum cost and inconvenience; (6) financial aid for maintenance during rehabilitation of such persons as are deemed able to profit from training.[14]

The Section enlists the aid of other agencies to render special service in plans for a rehabilitation program. Among these are the family welfare agencies, hospital social workers, the vocational advisors in agencies serving youth, private funds and grants, placement services of several agencies and institutions, sheltered workshop. For example, a family welfare agency may bear the cost of the living expenses and carry the problems of a family in which some member is in training under the supervision of the Rehabilitation Section in anticipation of his later becoming self-supporting.

Statistical data taken from the report of the Division of Vocational Education for the year ending November 30, 1940 gives a factual picture of what has been accomplished by the service outlined:

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[14] Ibid., p. 4

During the year December 1, 1939 to November 30, 1940, 310 persons were placed in training by the Rehabilitation Section, employment training comprising 101 programs. In the training of adults, employment training on the job itself has been found a satisfactory and practical method of vocational education. Public schools and public institutions furnished training in 32.58 per cent of all cases that were given any instruction. Private institutions throughout the State were used in 18.39 per cent of all cases. Since correspondence courses offered by the Massachusetts Division of University Extension may legitimately be considered public training, the extension courses given to Rehabilitation trainees bring to a full total of 50.97 per cent trained under public auspices.

Each year a study has been made of persons placed in employment and rehabilitated during that year for the purpose of comparing their earning power before and after their cases were referred to the Rehabilitation Section. During the fiscal year ending November 30, 1940, 266 persons were classified as rehabilitated by the Division. All placements resulting in a weekly wage have been included.

For the group rehabilitated during the above period, the average weekly wage at the date of reference was $1.26 as against $17.99 after rehabilitation, showing an increase of $16.73 per week per capita or of $231,409.36 for the entire number. This increase amounts to $248,837.68 in a year: a substantial annual payroll established through the Rehabilitation Service.

It should be borne in mind that these placements are made at the minimum wage in each instance, but, as the rehabilitants acquire further skill

and experience, their earnings increase accordingly.[14]

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14 Vocational Rehabilitation for Persons Disabled in Industry or Otherwise, op. cit., p. 4

Chapter IV

General Information About Pulmonary Tuberculosis

This investigation is made with the awareness that tuberculosis is a chronic, infectious disease which demands peculiar readjustments in the way of life of those persons who are infected with it. Once the disease has made inroads, any factor which may lower resistance--such as, fatigue, physical or mental weariness, malnutrition, or excessive dissipation--may lead to early breakdown or recurrence of illness.

Of the special manifestations of tuberculosis, involvement of the lung, pulmonary tuberculosis, is extremely important because of its great frequency. In 1938, the number of deaths from tuberculosis, all forms, in Massachusetts totaled 1,675 whereas 1,536 of these deaths were caused by pulmonary tuberculosis.[15]

Etiology

"The specific etiological agent is a microscopic rod-shaped bacterium called the tubercle bacillus, which was originally described by Koch in 1870."[16]

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15 Tuberculosis Facts and Figures for the United States, Massachusetts, p. 7 and p. 9

16 William M. Champion, Medical Information for Social Workers, p. 136

Diagnostic Terminology

"A definite diagnosis usually is established by the demonstration of typical physical signs in the chest, the typical X-ray picture, and particularly by the finding of the tubercle bacilli in the sputum."[17]

In instances of positive diagnosis, patients are classified in terms of the extent and character of the lesions and symptoms: (a) minimal lesions; (b) moderately advanced lesions; (c) far-advanced lesions. The classification is applied in this study and the significance of the terminology is outlined as follows:

Extent of Pulmonary Lesions

Minimal--slight lesions without demonstrable excavation confined to a small part of one or both lungs. The total extent of the lesions, regardless of distribution, shall not exceed the equivalent of the volume of lung tissue which lies above the second chondosternal junction and the spine of the fourth or body of the fifth thoricic vertebra on one side.

Moderately Advanced--one or both lungs may be involved, but the total extent of the lesions shall not exceed the following limits:

a. Slight disseminated lesions which may extend through not more than the volume of one lung, or the equivalent of this in both lungs.
b. Dense and confluent lesions which may extend through not more than

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17 Ibid., p. 139

the equivalent of one-third the volume of one lung.

c. Any gradation within the above limits.

d. Total diameter of cavities, if present, estimated not to exceed 4 cm.

Far-advanced--Lesions more extensive than Moderately Advanced.

Symptoms

a. None

b. Slight. Constitutional and functional symptoms; such as, loss of weight, ease of fatigue, and anorexia, are slight and not rapidly progressive. Temperature not more than one-half degree above normal at any time during the twenty-four hours. Slight or moderate tachycardia. Cough, if any, is not hard or continuous; sputum, if any, may amount to one ounce or less in twenty-four hours.

c. Moderate. Symptoms of only moderate severity; fever, if any, does not exceed two degrees. No marked impairment of function, either local or constitutional; such as, marked weakness, dyspnea, and tachycardia. Sputum usually does not exceed three or four ounces in twenty-four hours.

d. Severe. Marked impairment of function, local or constitutional. Usually there are profound constitutional symptoms; such as, weakness and continuous or recurrent fever. Cough often is hard and distressing, and the sputum may be copious.[18]

In classification of condition of cases on subsequent observations or treatment, the National Tuberculosis Association has adopted the following terms and

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18 Diagnostic Standards. Tentative edition. National Tuberculosis Association, N.Y., 1938, pp. 21-23

definitions. These terms are used in this report.

I Apparently Cured

All constitutional symptoms absent; sputum, if any, microscopically negative for tubercle bacilli; x-ray findings compatible with a healed lesion. These conditions shall have existed for a period of two years under ordinary conditions of life.

II Arrested

All constitutional symptoms absent; sputum, if any, microscopically negative for tubercle bacilli; x-ray findings compatible with a stationary or retrogressive lesion. These conditions shall have existed for a period of six months, during the last two of which the patient has been taking one-hour walking exercise twice daily, or its equivalent.

III Apparently Arrested

All constitutional symptoms absent; sputum, if any, microscopically negative for tubercle bacillus; x-ray findings compatible with a stationary or retrogressive lesion. These conditions shall have existed for a period of three months during the last two of which the patient has been taking one-hour walking exercise twice daily or its equivalent.

IV Quiescent

All constitutional symptoms absent; sputum, if any microscopically negative or positive for tubercle bacilli; x-ray findings compatible with a stationary or retrogressive lesion. These conditions shall have existed for a period of two months during the last month of which the patient has been taking one-half hour's walking exercise twice daily or its equivalent.

V Improved

Constitutional symptoms lessened or entirely

absent; sputum, if any, microscopically negative or positive for tubercle bacilli; x-ray findings to be those of a stationary or retrogressive lesion.

VI Unimproved

Essential symptoms unabated or increased; x-ray findings to be those of an active or progressive lesion.

VII Died [19]

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19 Harry Mustard, An Introduction to Public Health, pp. 113-114

Chapter V

A Statistical Analysis of 150 Social Case Records

In order to fulfill the purpose of this study, an investigation into the general background--i.e., sex, age, nationality, marital status, color, physical condition, length of hospitalization, usual occupations, work recommendations, and discharge plans of 150 sanatorium patients has been made, as well as a detailed follow-up of 50 of these patients.

Age and Sex

Purely by coincidence, the sexes of the patients in this survey are evenly divided. This does not warrant the conclusion that the incidence of tuberculosis bears no relationship to sex. Generally among adolescents, girls have a rate almost twice as high as boys. In the third decade of life, the rates for both sexes are about equal, and thereafter the rate for males is higher.[20] The statistics gathered here show an amazing correlation with Kleinschmidt's general statement as is illustrated in Table I.

The patients ranged in age from sixteen to seventy-five years. The youngest male was seventeen and the

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20 H. E. Kleinschmidt, "Tuberculosis," The Social Work Year Book, 1939, p. 435

oldest, sixty-eight; while the youngest female was sixteen and the oldest, seventy-five. The distribution of ages according to sex is illustrated in Table I.

Table I

Ages of Patients According to Sex

Ages	Males	Females
15-19	8	16
20-24	15	20
25-29	15	12
30-34	10	10
35-39	7	7
40-44	7	1
45-49	1	2
50-54	2	1
55-59	4	2
60-64	2	1
65-69	4	2
70-75	-	1
Total	75	75

The age group particularly involved is that of the young adult, 20 through 29. This is the group which is most severely affected and in which "consumption" is the major cause of death.[21]

Marital Status

Only forty-four of the patients, less than one-third, are married. Twenty-five of these are males

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21 Tuberculosis Facts and Figures for the United States and Massachusetts, pp. 3 and 9

and nineteen are females. The remaining patients have either remained single or have lost their partners. The marital status of the patients is outlined in Table II.

Table II

Marital Status According to Sex

Status	Males	Females
Married	25	19
Single	48	50
Widowed	0	5
Divorced	1	0
Separated	1	1
Total	75	75

The fact that so many of these individuals are unmarried may influence their plans upon discharge in that employment may be more necessary where there is no partner to carry a portion of the economic load. It is not justifiable to conclude that the marital status of the patients may have been conducive to the tuberculosis, as, conversely, marriage may have been postponed due to ill health.

Nationality

The statistics regarding nationality show little difference in the proportion of males and females in either the American or the foreign-born category. Fifty-three males and fifty females were found to be Americans,

while twenty-two males and twenty-five females were foreigners. There are nearly twice as many American patients as foreigners, a matter that may be influenced by the distribution of these two categories in the area of the general population served by the Sanatorium. Within the American classification, however, the Irish and Italian-Americans, both male and female, have the largest representation. While the city of Boston has an unusually high proportion of Irish and Italians, and this fact may account for the findings, nevertheless other research has found that there is a high incidence of tuberculosis in those of Irish and Italian stock.[22] Among foreigners, there is a slightly higher Italian and Irish representation. The high incidence in Canadian women may be of significance, but no basis for comparison with other studies has been found. Nationality according to sex is illustrated in Table IV.

According to Herbert L. Lombard, M.D., who has made a study of the chronic disease problem in Massachusetts, "The native-born of native grandparents have a slightly higher morbidity than do the native-born of native parents with foreign grandparents, and this group

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22 Herbert L. Lombard, The Chronic Disease Problem in Massachusetts, pp. 140-151

in turn has a higher rate than the native-born of foreign parents. In studying the total chronic disease morbidity, it is apparent that the farther we get from foreign stock the greater the disease;" and he poses the question, "Is foreign race stock hardier than the old New England stock?"[23]

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23 Ibid., pp. 140-151

Table IV

Nationality, According to Sex

Nationality	Male	Female
American	22	22
British American	0	1
English American	0	1
Canadian American	0	1
German American	0	2
Greek American	1	0
Irish American	12	11
Italian American	8	6
Lithuanian American	2	1
Polish American	1	1
Portuguese American	0	2
Russian American	3	1
Scotch American	2	0
Spanish American	0	1
Swedish American	2	0
Totals	53	50
Foreign born		
Canadian	1	6
English	1	0
French Canadian	0	1
German	1	0
Irish	3	4
Italian	3	1
Japanese	1	0
Lithuanian	0	1
Norwegian	0	1
Russian	3	0
Swedish	1	0
Syrian	0	1
Totals	14	15
Unknown	8	10
TOTALS	75	75

Table V

Racial Distribution According to Sex

Race	Males	Females
White	70	69
Yellow	1	0
Negro	4	4
Unknown	0	2
Total	75	75

There is a large percentage of whites (71.9 per cent) compared with the combined percentage (28.1 per cent) of negro, yellow, and unknown races. This finding probably represents the influence of racial distribution within the state of Massachusetts; i.e., because there are considerably more white patients than races of other colors. On the basis of these figures, it cannot be assumed that the other races have a lower incidence of tuberculosis. Indeed, race is considered a significant pathogenetic factor in the disease, "colored people being very prone to acquire the infection."[24] Table V illustrates racial distribution according to sex.

Physical Condition of the Patients

With the exception of three patients diagnosed as

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[24] Champion, op. cit., p. 137

nontubercular, all of the individuals studied were suffering from pulmonary tuberculosis.

Condition on Entrance to Sanatorium

Unfortunately, only twenty-seven, less than one-fifth, of the cases entered the Sanatorium while the disease was in its minimal stages. In eighty-seven, or over one-half of the cases, the tuberculosis was moderately advanced; and in thirty-two, or slightly over one-fifth of the cases, it was more than moderately advanced. Table VI shows the distribution of the diagnosis upon entrance according to sex. The fact that so few of these individuals were given proper care while the disease was in its early stages seems to indicate the need for better facilities for case-finding and physical check-up, and further education of the public.

Table VI

Diagnosis Upon Entrance According to Sex

Stage at Entrance	Males	Females
Nontubercular	1	2
Minimal	13	14
Moderately Advanced	47	40
Far Advanced	14	18
Unknown	0	1
Total	75	75

Number of Days in Sanatorium

The predominance of advanced diagnoses upon entrance accounts for the fact that the mean number of days spent in the hospital was 525 days or seventeen and one-half months. The median number of days was 377.45. The divergence between these figures is to be accounted for by the fact that a few of the individuals were in the Sanatorium for very lengthy stays, one remaining for over seven years. Table VII shows the number of days spent in the Sanatorium according to sex.

Table VII

Number of Days Spent in the Sanatorium According to Sex

No. of days	Males	Females	Total
0-249	22	27	49
250-499	28	23	51
500-749	14	14	28
750-999	3	4	7
1000-1244	3	3	6
1250-1499	2	0	2
1500-1749	2	2	4
1750-1999		2	2
2000-2249			
2250-2499			
2500-2749	1		1
Total	75	75	150

Condition on Discharge from Sanatorium

One hundred and five patients, over two-thirds of the total number, were discharged with the disease in the quiescent stage, while forty, a little less than the remaining third, were discharged after the disease was arrested or apparently arrested. This seems to indicate that those patients referred to social service for discharge plans had remained in the hospital until their physical condition was such that discharge was permissible. Since these figures do not cover all of the patients in the Sanatorium, but only those who actually consented to be interviewed by social service before discharge, no general conclusions can be drawn as to the rate of improvement in all patients admitted to the hospital. Table VIII shows the condition of the patients under consideration at the time of discharge, according to sex.

Table VIII

Diagnosis on Discharge According to Sex

Stage at Discharge	Males	Females
Quiescent	44	59
Apparently Arrested	15	9
Arrested	11	5
Improved	4	2
Unimproved	1	0
Total	75	75

Tables VI and VIII present uncorrelated figures of the stages at entrance and discharge. A further study presents Table IX, which shows the relation between these stages. That is, of the 27 patients who entered the hospital while the disease was in the minimal stage, how many left with the disease quiescent, arrested, or improved? For the purpose of making the table less complicated, male and female patients have been put in one category. Also arrested and apparently arrested have been put together, and advanced and far-advanced likewise.

Table IX

Stage of Discharge in Relation to Stage at Entrance

Stage At Discharge	Minimal	Moderately Advanced	Far-Advanced	Non tbc	Unknown	Total
Quiescent	16	62	24		1	103
Arrested or Apparently Arrested	11	23	6			40
Improved		2	1	3		6
Unimproved			1			1
TOTAL	27	87	32	3	1	150

This table shows then that, of the 27 patients admitted in minimal stage, 16 left in quiescent stage and 11 in arrested or apparently arrested. There were 87 patients admitted in a moderately advanced stage; that

is, almost three-fifths of the total number. Of this number, 62, or about two-fifths of the total number, were discharged in a quiescent stage. Also 23 were discharged in arrested or apparently arrested condition. The quiescent stage is apparently the most common on discharge, with arrested and apparently arrested next in line. Only one person was discharged as unimproved. This person was in the hospital for 639 days and then left against doctor's advice. This again seems to indicate that patients are not dismissed from the Sanatorium until physical condition is improved and discharge is advisable. The totals are significant in showing that, of the 150 patients studied, 103 were discharged in a quiescent stage and 40 in arrested or apparently arrested stages. The fact that only 6 were discharged as merely "improved" is encouraging, for 3 of these 6 patients were nontubercular and 1 patient left against the doctor's advice.

Economic Factors Concerning Patients

We have discussed the fact that the median number of days in the Sanatorium was 377.45. The social implications seem highly significant, for this represents over a year's stay. In simple human terms, a large proportion of people who are at the age when life offers

the greatest opportunities for activity are forced to change their pattern of living entirely, at least for the duration of their treatment in the Sanatorium. It seems fitting then to inquire into the nature of their ordinary lives, most aptly expressed through studying their usual occupations.*

Table X shows the usual occupations of the male patients classified according to the four major categories; white collar, 19; skilled, 16; unskilled, 26; and students, 14.

Table X

Usual Occupations of Male Patients

Type	No. of Patients
White Collar	19
Skilled	16
Unskilled	26
Students	14
Total	75

The high proportion of unskilled workers may in itself be an unimportant finding. However, if we could assume that in general unskilled workers fall within the

*The term "usual occupation" as used here means that occupation at which the person has normally been employed or one which he considers has been his usual occupation by experience or training.

lower income groups, this fact might begin to take on importance; for it has been pointed out that housing, nutrition, and comparatively poor working conditions are all factors contributing to the incidence of tuberculosis. According to the Social Work Year Book, 1939, "Census figures show a suggestive correlation between occupation and the tuberculosis death rate. Rates for male professional and managerial workers, for example, range as low as 28 per 100,000 while for unskilled workers at the other end of the occupational scale, the rate is 185... It is likely that the standard of living set by the income of the workers is the important factor accountable for the variation of death rates according to occupation."[25] Thus, the conclusion that economic status plays a part in the incidence of tuberculosis among the patients of this study seems justifiable.

Table XI shows the usual occupations of the women patients according to the major categories; white collar, 11; skilled, 2; unskilled, 22; students, 13; and housewives, 27.

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25 Kleinschmidt, op. cit., p. 435

Table XI

Usual Occupations of Female Patients

Type	No. of Patients
White Collar	11
Skilled	2
Unskilled	22
Students	13
Housewives and at home	27
Total	75

This shows a high proportion of unskilled workers, and the significance of this finding may be the same as indicated by the discussion concerning the unskilled males. Special mention, however, should be made of the large proportion of women who remained in the home--27, exactly. Again we find that students are proportionately well represented. This is significant in that in most cases these individuals have had no work experience previous to hospitalization.

Financial Status

It is obvious that with these numerous types of work engaged in before entrance to the Sanatorium, a large proportion of the patients studied were wage earners. The findings regarding family or financial status bear out this fact, in that 80% of the male and female patients were self-supporting, which may be defined as

being not dependent upon aid from the community. Seventeen per cent were dependent upon aid, although it is not clear to what extent public assistance was received or over what period of time. The financial status of three per cent of the patients was not available. Table XII gives the figures upon which these percentages were based.

TABLE XII

Financial Status of Patients

Status	Males	Females
Receiving Aid	11	14
Self-supporting	60	60
Not Stated	4	1
Total	75	75

Work Recommendations and Discharge Plans

It was previously stated that the majority of patients entered the Sanatorium when their disease was in the moderately advanced stage,* and they were discharged when their condition was quiescent. These discharges were with the approval of the attending physician. This may explain the fact that over two-thirds

*See pages 29 and 30

of all patients studied were advised to do "light work" following hospitalization. The term, "light work," evokes questioning in that its meaning is vague. Concerning this phrase, it is said that Dr. Richard Cabot remarked, "There is no such thing as light work." It is presupposed here that the type of employment meant is that which is nonfatiguing and which requires a few hours of labor each day. Table XIII shows work recommendations to patients on discharge according to sex.

Table XIII

Work Recommendations to Patients on Discharge According to Sex

Work Recommendation	Males	Females	Totals
No work	7	21	28
Light work	59	51	110
School	1	1	2
Not stated	1	2	3
Regular work of patient	5	0	5
Moderately heavy	1	0	1
Part-time for six months	1	0	1
Totals	75	75	150

From Table XIII it is evident 28 patients were advised to do "no work" and 110 to do "light work." Only 5 patients, males, were considered physically capable of returning to their regular work.

The patient's own plans upon discharge are the most important factors in his recovery. Upon the adequacy of his own plans hinges his ultimate success in returning

to "normalcy" or at least "partial normalcy." For this reason, the Sanatorium social service workers attempt to guide the patients in planning and, wherever feasible, to refer them to agencies set up for rehabilitation purposes or for welfare work.

According to the figures in Table XIV, the largest number of patients (89) planned to return home or to relatives and friends, and only a small proportion (3 patients) considered vocational rehabilitation. Of course, vocational rehabilitation is neither feasible nor necessary for those who can return to former employment or employment similar to that in which they were engaged before hospitalization, nor for those who are too ill to work.

Summary

Thus, we see that when ready for discharge, these patients are no longer invalids, but they are affected by their healing processes. Their disability limits the field of work in which they can be employed. They are incapacitated for strenuous exertion, but not for lighter work or mental effort. The majority, so physically handicapped, are young and have had no special training for earning their living.

Table XIV

Patients on Discharge from the Sanatorium

Discharge Plan	Physical Condition									
	MALE					FEMALE				
*	Q	AA	A	IMP	TOTAL	Q	AA	A	IMP	TOTAL
To return home	14	4	2	1	21	31	3	2	1	37
To live with relatives or friends	10	1	3	0	14	13	3	1	0	17
To return to previous work	4	3	2	0	9	1	0	1	0	2
To return to Welfare aid	2	1	0	0	3	6	1	0	1	8
To look for work	2	1	1	0	4	1	0	0	0	1
To Rehabilitation or Sheltered WS**	2	0	0	0	2	1	1	1	0	3
Return to school	2	0	1	0	3	1	0	0	0	1
Go on a vacation	3	0	1	0	4	0	0	0	0	1
Rest 6-12 months	0	2	0	0	2	0	0	0	0	0
Get a job through a friend	0	0	1	0	1	0	0	0	0	0
Remain in Sanatorium as an employee	1	0	0	0	0	0	0	0	0	0
Unknown	4	3	0	3	10	5	1	0	0	6
1 case***	0	0	0	0	1	0	0	0	0	0
TOTALS	44	15	11	4	75	59	9	5	2	75

*Q - Quiescent; AA - Apparently Arrested; A - Arrested; IMP - Improved.

**Rehabilitation - Massachusetts Division of Vocational Education, Rehabilitation Section; Sheltered WS - Sheltered Workshop.

***In one case, the discharge plan was unknown and the condition was reported as unimproved.

A considerable number are students who have had no work experience whatsoever. A large percentage are without means of self-support during tuberculosis home treatment. Therefore, when discharged, they go back to work similar to that in which they previously broke down or go to family or welfare aid, either because of inability to secure suitable employment or because of the inadvisability of employment. They have spent an average of about one year in the hospital, during which time the greatest number probably lost contact with former employers.

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Chapter VI

Follow-up of Fifty Patients

It is an acknowledged fact that business men are vitally interested in profits; in case of losses, they take steps to prevent further reflux and, wherever possible, convert their liabilities into assets. In a similar way, health workers should be interested in the return on investments made for the care and treatment of tuberculous patients. It is their task to protect the investment of the community by seeing to it that the person discharged from a sanatorium becomes, if possible, a valuable community asset.

This chapter deals with fifty patients who were selected from the 150 patients studied for follow-up. At the time of follow-up, each patient had been out of the hospital for at least five years. Emphasis is laid on the community services offered them, adequacy of these services, and the patients' ability to use them.

Medical Supervision of Patients After Discharge

The most important part of tuberculosis rehabilitation work is to see that the patient continues under necessary medical supervision. In the sanatorium, it has been constant and detailed. Outside it must be fairly constant and efficient. Whatever steps are taken by the patient toward economic recovery must be checked

against his physical condition so that there will be no backsliding in the progress toward complete recovery.

Medical Care

Let us examine the facts to see how far a medical follow-up was given. Of the fifty patients, no clinic records were found for twenty-six patients; however, of this number, a total of twenty were treated either by private physicians (eighteen patients) or in hospitals (two patients). Thus, only six patients have not had any medical attention at all, as far as can be ascertained. Since all cases of tuberculosis must be reported by attending doctors, it is assumed that these patients have not been examined since discharge or else have moved outside the area covered.

Of the fifty patients, the homes of forty-eight were visited by the public health nurse following discharge. Two patients were not visited, as one did not live within the Boston area, and the other had been sent to another sanatorium. In four cases, no visits were made after the first one, as the patients were no longer living at the addresses given. Fifty-eight per cent of the home visits were made within one month after discharge and 78 per cent were made within two months. Three patients were visited for the first time, as late as nine months after discharge. Several factors may have delayed home

visits. In certain instances, the patients reported to clinic and were seen there; others were discharged from the Sanatorium in an arrested or apparently arrested condition; and others had been discharged with a favorable work recommendation.

The average number of home visits by nurses to cases which are still open is 17.7 for the five years covered. Often, however, nurses utilize clinic visits as home visits.

Twenty-three cases were closed as follows:

1. Four patients were discharged to private physicians.
2. Two patients were discharged to the Boston Sanatorium.
3. Two patients were discharged to other hospitals.
4. One patient died.
5. Eight patients moved out of town.
6. Six patients moved to unknown addresses.

Whereas 46 per cent of all the patients are no longer followed by the nurses, only 12 per cent are not followed because of unknown addresses.

Readmissions

Six patients, or 12 per cent, were readmitted to sanatoria. All these patients had been discharged with approval from the Sanatorium for the first time with their disease in the quiescent stage, and had entered when the disease was either moderately advanced or far-advanced. It is significant that not one patient who

entered the hospital with minimal pulmonary tuberculosis was returned. This points to several needs in the whole process of rehabilitation; namely, early diagnosis, adequate treatment, and hospitalization until the patient's physical condition is such that he may safely return to his home. Turning to the financial side of the problem:

> ".....while the average cost of maintaining a patient during his first admission is $900, the cost of maintaining him during a relapse is from $2,000 to $4,000. Part of this difference is accounted for by the fact that, in most cases, special treatment of an active nature, often surgery, is required in readmission."[26]

Five of the six patients who were returned to the hospital were treated by private physicians. Does this mean that patients who attend the public clinics get more regular care because their nurse checks their attendance? For illustrative purposes, the writer sets forth the following case:

> Jack,* a young boy of twenty at the time of his referral to the Social Service Department at the Boston Sanatorium, was indefinite about his future plans. He had been in the hospital for 716 days and considered returning to his home. On September 16, 1929, a week after his dis-

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26 Lasky and Hamilton, op. cit., p. 2

* The name is fictitious. The material in this case was condensed from the Social Service record of the Boston Sanatorium and from the record at the Division of Tuberculosis, Boston Health Department.

charge, the Board of Public Health nurse visited the home. Jack looked well, but pale. He was advised to get more rest and continued treatment. The boy was co-operating, and, in the months that passed, he faithfully attended clinic. However, it was felt that he was not getting enough rest nor an adequate diet. The nurse gave him instructions repeatedly. By December, 1939, it was found that there was an extension of the disease and, at the doctor's recommendation, he was returned to the Sanatorium.

In this case illustration, one notices that the boy was urged to take care of himself, but urging alone was insufficient. Generally, when a private physician is in charge of a case, the nurse's home visits are less frequent than otherwise.

In addition to giving patients direct medical attention, the public health nurses offered other services to the patients they followed. Two patients were referred to agencies for vocational rehabilitation. In three other instances, letters were written in behalf of patients to the Bureau of Aid to Dependent Children, requesting extra milk; to the Work Project Administration, asking for inside work; and to the Overseers of Public Welfare, requesting extra aid.

Re-employment

Of the twenty-seven cases still open with the Health Department, sixteen are employed gainfully and five are housewives working in their own homes. The re-employment

status of one male patient is unknown. Of the five patients known to be unemployed, three are receiving welfare aid (Old Age Assistance, Aid to Dependent Children, and Overseers of the Public Welfare, respectively), and two are supported by their families.

Table XV

Employment Status of Twenty-seven Patients Five Years Following Discharge From The Boston Sanatorium

Employment Status	Males	Females	Total
Employed	9	7	16
Housewives		5	5
Unemployed	4	1	5
Unknown	1		1
Total	14	13	27

The unemployed patients are all receiving tuberculosis home treatment. One of these patients has been referred to both the Sheltered Workshop and the Division of Vocational Education, Rehabilitation Section. Another patient plans to start training at the Sheltered Workshop if he is granted permission by his physician.

Table XV shows the employment status in 1943 of the twenty-seven patients whose cases are still open with the Boston Public Health Department.

It should be stressed, however, that both employment and unemployment create problems. For example, in one

case, a patient who has been working ever since his discharge is trying to find different employment. His present job as elevator operator demands too many hours. In another case, the wife of a patient (thirty-three years old) who has been unemployed since discharge from the Sanatorium states that her husband, because of his poor physical condition, "seems wild because he can no longer bear not working."[27]

Vocational Rehabilitation

The services of the Boston Tuberculosis Association and the Division of Vocational Education Rehabilitation were used by four patients at some time after their hospitalization. One of the patients contacted both agencies. Their case histories give some indication as to how these agencies were used and with what degree of success.*

Case I

Bertha, a large, blonde, pretty Irish girl worked in the pantry of a hotel before her admission to the Sanatorium. Approximately two years after her hospitalization, she was discharged with approval when her disease was in a quiescent stage. With the help and guidance of the hospital social worker, she made plans to go to the Sheltered Workshop of the Boston Tuberculosis Association

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27 See P. 53 for version of his case story

* The names used in these cases are fictitious and any obviously identifying material has been removed or disguised.

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charge is trying to find different employment. His
present job as elevator operator demands too many hours.
In another case, the wife of a patient (thirty-three
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[2] See P. 55 for version of this case story

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for training in a more suitable type of occupation. Within a month after discharge, Bertha was interviewed by the Association's Placement Secretary and the possibility of returning to hotel work in the sewing department was discussed. Bertha was pleased with the prospect of learning sewing as she did not aspire to sales or office work. As she was without funds, arrangements were made for her financial needs by the Catholic Charitable Bureau and the Department of Public Welfare.

Soon after her first interview, Bertha started to work in the Workshop for two hours a day. The following month, her working day was increased to three hours. Her shop attendance was very good. Although she had no particular sewing skill, she was conscientious. She was quiet and friendly, but was careless in appearance. Nine months later she worked five hours a day. In August, a vacation was arranged for her and a short time afterward she was enrolled at the Opportunity School for training in the use of a power machine. Several months later, the School placed her in a firm which manufactured cotton housecoats. This was done with the doctor's permission. Letters received since from the patient indicate clearly that she is getting along well and working steadily.

Case II

Lewis L. was referred to the Placement Secretary of the Boston Tuberculosis Association in January, 1943, by the Supervisor of Nurses at the tuberculosis clinic he attends. Mr. L. had entered the Sanatorium when his disease was in a minimal stage and left, with approval, about a year later, when his disease was in a quiescent stage. His usual occupation demanded heavy work but, before his hospitalization, he had been unemployed and was receiving aid. On discharge, light work was recommended. In going over his discharge plan with the Sanatorium social worker, it was agreed that financial support from Aid to Dependent Children would be advisable until suitable employment could be found by Mr. L.

Mr. L. visited the tuberculosis clinic regularly, and there was advised to do no work. In January

of this year, Mrs. L. informed the Public Health nurse that her husband seemed wild because he wanted to work and could not. In February, at the Supervising Nurse's referral, the patient was interviewed for training at the Sheltered Workshop. This training is to start when the doctor's permission is granted.

Case III

G. entered the Sanatorium when his disease was in the far-advanced stage and left about one and a half years afterward when his disease was quiescent. He rejected all plans that the social worker suggested upon his discharge from the Sanatorium.

A few months after discharge, G.'s nurse referred him to the Sheltered Workshop, and he was accepted for two hours' work a day, in keeping with his physical condition. At first, he appeared interested but it was soon evident that he did not care for the plan outlined because the pay during the period of training was insufficient. Therefore, he did not report to work.

In 1941, G. went to the Division of Vocational Education, to which he had been referred by a social agency. The referring agency stated that G. had been tested and found to have low normal intelligence, better-than-average finger dexterity, and an average emotional adjustment. He was given some manual work to do within the agency itself but was too slow and weak to carry it on.

The services of the Rehabilitation Section were outlined to G., and the worker pointed out that he could get NYA aid if he would accept a program of training. However, G. was not interested in any training, and several employment leads were given to him. It appeared that his main intent was to earn money immediately. A worker suggested that G. return to him if the leads turned out unsuccessfully. Nothing was heard from G. and, as recently as February, 1943, a follow-up letter was sent to him.

Case IV

D. P. was referred to the Rehabilitation Section by a Sanatorium social worker. He was interested

in drafting, and the doctor had approved his working from three to four hours a day. However, shortly before discharge, D. P. informed the worker that he was no longer interested in the plan. Two years later, D. P. contacted the Rehabilitation Section himself, as he wanted training to become a machinist. He was referred to the Massachusetts Employment Office for defense training by the worker. Five days after training, however, he left, remarking that a friend would help him get a job. He appeared to be concerned about the fact that his physical condition would hinder his getting work. In June, 1941, one month later, a follow-up letter was sent to D. P., and in reply D. P. stated that he was employed as a pleater of skirts, earning $27.00 a week.

Thus we see that less than one out of every ten patients used the services available for vocational rehabilitation. Whereas Case I presents a success story in vocational rehabilitation, Case III illustrates the reverse. In the latter case, the patient continually rejects plans for training and seems interested only in the immediate monetary returns. An interview with his nurse demonstrated that the patient is still out of work and becoming increasingly dissatisfied with his lot in life as he cannot "keep up" with other boys his age. Now, at the age of 26, he is willing to work but unable to do anything but light work, for otherwise "he'd go to pieces."

Case II shows what an effect years of forced idleness have upon a young man in his early thirties.

Case IV shows the fearful attitude of a patient toward his physical condition. At the age of 27, D. P. believes his condition will stand in the way of his getting work, and so he grasps the first thing that comes his way.

Chapter VII

Conclusions and Recommendations

As a result of this study, the writer draws the following conclusions and makes some recommendations:

1. The vast majority of patients entered the Sanatorium while their disease was in the moderately advanced or advanced stages, and these patients not only require a long period of hospitalization but also have a lower life-expectancy than those whose cases receive attention in the minimal stages. There is a definite need for better facilities for case-finding and early diagnosis of tuberculosis. This can be partially accomplished by further education of the public in regard to tuberculin tests. Social agencies can refer individuals whom they suspect to be tuberculous to the proper medical receiving station. Schools, public and private, and at all educational levels, can play an even more active role than at present in driving tuberculosis from the American health scene by engaging in more programs of health education.

2. In view of the facts that (a) the greatest number of patients were discharged when their disease

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2. In view of the facts that (a) the greatest number of patients were discharged when their disease

was in the quiescent stage and were, therefore, advised to do "light work," (b) that the largest percentage had been wage earners employed in unskilled occupations at the time of Sanatorium admission and, therefore, generally returned to the low income group, and (c) that relapses, which represent extended economic waste for the patient and the community, are not uncommon, close medical and social follow-up are absolutely necessary in order to make sure that the patient continues to get proper care and treatment. Only then will he be able to be restored to productive citizenship.

Patients who are members of a low-income group are usually forced by this economic aspect to face menacing problems of poor housing and malnutrition. At some time after discharge, they must find work if they are to live. Should a part-time job not be forthcoming, full-time work must, against the advice of doctors and the will of patients, be accepted. Poor diet, overexertion, and fatigue combine methodically until a relapse and illness reassert themselves. Relapses must be considered not only from the point of view of financial waste but

also from that of toll in human factors. Readmissions to the Sanatorium, with few exceptions, mean long periods of hospitalization and readjustment to institutional routine; and, ironically, chances for a quasi-successful second recovery do not increase proportionately with additional treatment.

A social follow-up in addition to a medical follow-up after hospitalization is recommended. These two services, working hand in hand, would insure the community a much better return on its health investment. The social follow-up would help patients with their financial problems, thereby placing within their reach such elementary needs as good food, sleeping quarters, etc., and at the same time guiding them away from employment unsuited to their present physical conditions. Wherever necessary, steps would be taken to remove a patient from a detrimental home environment in order to complete social and physical readjustment. When ready, physically and psychologically, to accept a plan of work-training, patients would be advised and helped in securing education for vocational rehabilitation.

3. Our study finds that 12 per cent of the patients followed have not had any medical care after discharge. The community health is thereby seriously endangered. Persons who know they are infected with a contagious disease are circulating within a community which is helpless to protect itself since the infected permit themselves to remain unknown and unchecked. Furthermore, this shows a positive need not only for stringent health laws for the public, but also a need for such complete indoctrination of the patient before discharge with the health routine he must follow so that he will be unable to escape his sense of personal and public responsibility for treatment when he returns to civilian life.

4. Only a small minority of patients (4) sought the aid of agencies devoted to vocational rehabilitation services; and, because the services of these agencies have proved successful upon occasions, this side of the rehabilitation program deserves greater effort on the part of social workers in developing the interest of patients in following the routine of building up work-tolerance in a trade which may require some few months of study,

and in expanding their own capacities for building this oftentimes wavering interest into definite, productive action.

Guiding the patient-point-of-view so that he will comprehend and accept the value of specific training, on a modified wage scale, is most important. This is the most difficult thing to "sell" to the patient. This re-education, in order to equip the patient for the new world in which he must live, a world where he must now work at jobs that will support him physically and spiritually, and still not endanger his health, is the place where most emphasis must be placed and where tireless, unceasing effort and encouragement must be offered--even in spite of negligible returns.

It is heartening to realize that Boston's system of rehabilitation of the tuberculous has the possibility and hope for a brighter future "written in its stars." Its agencies are easily accessible. They are always waiting, with what facilities they have, to work in behalf of the individual, be he co-operative or otherwise. The spirit of the people engaged in this very significant phase of treatment of tuberculous patients is strong and courageous--but strength of spirit alone cannot solve the

countless problems connected with tuberculosis. Equipment--more workers, more funds, more publicity, more public education, more co-operation from the community--these, together with "the spirit," can be entrained to deliver a knock-out blow to tuberculosis and its consequences--in Boston or anywhere!

APPENDIX

SCHEDULE I

1. Name

2. Address

3. Case No.

4. Marital Status

5. Sex

6. Religion

7. Age

8. Nationality

9. Color

10. Dates

a) Entrance
b) Discharge
c) Referred to Social Service

11. Number of days in Sanatorium

12. Medical Condition

a) Diagnosis
b) Stage at entrance
c) Stage at discharge

13. Occupation

a) Usual occupation
b) Work recommended

14. Financial Status
(check one) Aid Self-supporting

15. Discharge Plan

SCHEDULE II

Date

Name_____Marital Status

Address

Supervision after discharge:

a. Home visits by nurse
   1. Number of home visits:
   2. Date of first visit:
   3. Date of last visit:

b. Tuberculosis Clinic
   1. Date of first visit:
   2. Date of last visit:
   3. Number of examinations:

Time interval between discharge and first employment:

Cause for delay in obtaining first employment:

a. Tuberculosis home treatment
b. Other illnesses
c. Unable to obtain work
d. Remarks:

Present occupation:

If patient is unemployed, check the following reasons:

a. Tuberculosis home treatment
b. Other illnesses
c. Unable to obtain work
d. Remarks

Returned to Sanatorium

a. Dates of entrance
b. Dates of discharge
c. Discharged with approval?
d. Now in Sanatorium

Case referred to a social agency by nurse, doctor, or other member of Health Department

Agencies	Dates	Reasons

Case closed: Date: Reason:

a. Date patient last seen or heard from:
b. Last occupation

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Approved,

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Dean